

Operational History:

- Prior to 1970, the land where the site now exists was used for agriculture purposes (EnSafe, 1996).
- The construction date of the Facility is not documented in available records; however, several reports state that operations began at the site around 1970 with the manufacture of methoxychlor.
- The plant was constructed and initially operated by Helena Chemical.
- In 1972, the plant was sold to Mr. Jerry Williams, who in turn sold the plant to Ansul later in 1972.
- The plant was subsequently used by Ansul for dinoseb production beginning in 1972.
- In 1973, the plant was repurchased by Mr. Williams. The plant subsequently operated under the name Eagle River Chemical and subsequently under the name Vertac, Inc.
- In 1986, the plant was sold to Cedar Chemical Corporation (Cedar Chemical) (A.T. Kearney, Inc. 1988).
- In 2002, the plant was closed

During operation, the Facility consisted of six production units:

- Unit 1 was utilized for formulation of various custom chemicals such as permethrin and permethrin acid chloride, for other companies.
- Unit 2 was the propanil production unit.
- Unit 3 known as the Expansion Area was destroyed in a fire and explosion on September 26, 1989.
- Unit 4 was used for production of various custom products such as orfom D-8 and orfom CO300. Unit 4 was also contracted from time to time for the production of methyl 2-benzamide carbonate (MBC) and methyl ethyl sulfide (MES) and the mixing of Metam Sodium.
- Unit 5 was primarily used to manufacture nitroparaffin derivatives and Unit 6 began producing dichloroaniline in 1991 used in the production of Propanil Regulatory History

The chemicals identified in this bulleted list are not an exhaustive list; many other chemicals were produced at the site. The unit(s) involved in the production of these chemicals, including dinoseb, could not be identified with certainty during the preparation of this report.

The ADPC&E initially became involved with the Facility shortly after production began at the plant in the early 1970s. This involvement was in response to citizen complaints of discharges of water and odors. There were additional regulatory actions or directives regarding the Facility during its operational history; these are summarized below.

In 1972 to 1973, Vertac began using three unlined earthen surface impoundments on the west side of the Facility for disposal of waste chemicals. The surface impoundments were constructed during the early 1970s and utilized until 1978 when they were closed by Vertac. Closure of the impoundments was performed by draining them of water and

installing a clay cap consisting of native soil and bentonite (Ecology and Environment, Inc., 1986).

In 1980, Vertac submitted a RCRA Part A Permit application to ADPC&E for a hazardous waste storage tank (T-B112), a container storage area, and the surface impoundments described above. In August 1984, Vertac submitted the Part B Permit application. Soon after the Part B application was submitted, the ADPC&E concluded that the surface impoundments were not a hazardous waste unit, and dropped them from the permitting process in a letter dated November 1984.

On January 9, 1986, Vertac notified ADPC&E that Cedar Chemical had purchased the Facility. The Part A and Part B Applications were revised in March 1986 and November 1986 to reflect the new ownership.

On May 30, 1986, ADPC&E conducted a compliance evaluation inspection (CEI). This resulted in an issuance of a notice of violation (NOV) to Cedar Chemical on December 19, 1986, citing several violations. Subsequently, Consent Administrative Order (CAO) No. LIS 86-027 was issued to Cedar Chemical on July 16, 1987, required them to stop disposing of hazardous waste in the certain surface impoundments and to investigate potential release(s) to surrounding media.

On September 14, 1987, Cedar Chemical submitted a Closure Plan for hazardous waste storage tank T-B112 and the container storage area, under the Part A and B permit applications.

On October 1, 1987, Cedar Chemical Company submitted a letter to ADPC&E stating that waste would not be treated or stored on site for more than 90 days and requesting that the RCRA Permit application be withdrawn.

In December 1987, EPA Region VI conducted a Preliminary Review and Visual Site Inspection (PR/VSI) under the RCRA Facility Assessment (RFA) process, and identified 74 solid waste management units (SWMUs) and one AOC. The results of this study were presented in the PR/VSI Report dated January 1988.

On April 1988, under Consent Order LIS-86-027, a site hydrogeological assessment plan was submitted by Geologic Associates, Inc. to ADPC&E for an assessment required under CAO No. LIS 86-027.

On June 6, 1988, the ADPC&E approved Cedar Chemical's request to withdraw the hazardous waste tank T-B112 from the permit process.

On July 18, 1988, the hydrogeological assessment required under the CAO LIS-86-027 was performed and on August 4, 1988, the report (Grubbs, Garner & Hoskyn, Inc., 1988) was submitted to ADPC&E.

On November 21, 1988, Cedar Chemical filed a letter with ADPC&E stating that the tank and the container storage areas had been closed and had been converted to a less than 90 day storage areas. ADEQ approved the closure of these areas on December 12, 1988.

In November 1988, under CAO LIS-86-027, a groundwater monitoring program plan was submitted to ADPC&E; a series of monitoring wells were subsequently installed and sampled. In January 1990, the first groundwater monitoring report was submitted, and a program of quarterly monitoring was commenced.

On February 26, 1990, ADPC&E conducted another CEI. On June 26, 1990, Cedar Chemical Company was informed of an observed violation, involving the disposal of contaminated monitoring well purge water directly onto surface soil.

In April 1990, Cedar Chemical informed ADPC&E that buried drums had been found during an excavation to construct a stormwater ditch. The excavation and removal of the buried drums was performed during 1990 through 1992.

In 1991 and 1992, the Facility experienced several exceedances of NPDES permit discharge limitations, and resulting NOVs were issued during this time. The causes of these violations were reportedly all addressed by Cedar Chemical Company.

In 1991, Cedar Chemical entered into CAO No. LIS 91-118 under RCRA corrective action, requiring the completion of a Facility Investigation (FI) at the site. As discussed in later sections of this report, Phases I, II, and III of this FI were performed by EnSafe in 1993 through 1996. The FI results were then incorporated into a risk assessment in 2001, and submitted with a final addendum to ADEQ in 2002 prior to the operational shutdown of the Facility.

On May 27, 1998, ADEQ conducted another CEI, and again documented observed violations. The resulting CEI report stated that Cedar Chemical had been accumulating hazardous waste for more than 90 days in an un-permitted unit. ADEQ subsequently issued CAO No 99-131, that required Cedar Chemical Company to achieve and maintain compliance with Arkansas state regulations.

On March 8, 2002, Cedar Chemical filed for bankruptcy. Manufacturing and plant operations were shut down shortly thereafter.

ADEQ conducted a CEI on June 4, 2002, after the Facility operations shut down, and noted that Cedar Chemical Company had again accumulated hazardous waste for more than 90 days in an un-permitted unit and had relinquished hazardous waste to an un-permitted transporter. In an August 14, 2002 letter, ADEQ required that Cedar Chemical submit manifests to ADEQ for the waste being shipped off-site, documenting that the transporter and disposal facility being used were properly licensed and permitted.

Cedar Chemical was in the process of preparing a corrective action plan at the time it filed for Chapter 11 bankruptcy. The plan was not completed or submitted.

ADEQ assumed control of the site on October 12, 2002. As documented in the Comprehensive Assessment Report prepared by ADEQ dated April 2004, the existing environmental issues associated with the site included abandoned chemicals, buried drums, groundwater contamination, surface and subsurface soil contamination, and an abandoned stormwater treatment system.

In January 2003, USEPA Region 6 issued a Request for Removal Action Memorandum to remove chemicals left on site in tanks and containers. A USEPA contractor completed the required waste removal during the summer of 2003.

On July 20, 2006, ADEQ issued a Civil Complaint against Wormald, USA, Inc., successor to Ansul, Inc., Helena Chemical Company Inc., and ExxonMobil Chemical Company successor to Mobil Chemical Co. On March 26, 2007, ADEQ voluntarily dismissed its civil complaint. On March 26, 2007, ADEQ also issued a CAO to these same parties, which is the basis for the work currently being performed by the Group at the Facility.

The Facility was constructed in 1970 and operated until 2002. There have been no production operations at the Facility since 2002. When the Facility was active, operations were primarily the manufacture and blending of pesticides, herbicides, and specialty chemicals.

Certain chemical constituents are migrating vertically through leakage from the Perched Zone to the Alluvial Aquifer. Based on the contrast in chemical concentrations between these two zones, most of the contaminant mass is likely being retained in the low permeability soils of the perched zone.

Clay's Imitation Writing

Cedar chemical was constructed in xx, 197x. The products made originally included xx,xxx,xx,x,x,x. This was developed in one unit (unit xx). Eventually the products developed expanded to xx,xxx,x,x,x. of these, xx was the product most made. Unit xx was put in place in xx, 19xx for the production of this chemical.

During this time, cedar apparently was negligent in properly handling their product. Off-spec batches of product were reportedly disposed of in “the disposal ponds” (these ponds were eventually converted into a surface impoundment – Site 2). Other instances of environmental negligence included draining excess chemicals into the ditches. With the **Resource Conservation and Recovery Act (RCRA)**, enacted in 1976, cedar was required to obtain proper permits and began to adhere to the disposal regulations. However, as noted in CAO LIS xxx-xxxx, cedar violated regulations which resulted in soil remediation and the installation of a gw well network to monitor the nature and extent of contamination. Gw contamination primarily consisted of xx chemical.

In xxx, cedar chemical changed ownership to xx corporation. This company change did not change the chemicals produced. Cedar continued to expand and increased to 4 units by xx, 19xx.

Ownership changed hands again in 19xx. A series of production line changes and renovations were developed. Also, 2 units were expanded which totaled 6 units (currently standing). Chemicals processed here include xx,xx,xxx,. The total volume of product produced is uncertain.

In 2003, cedar chemical filed for bankruptcy. Shortly thereafter, the plant operations were shut down. A large quantity of Propinel TM was left in the storage warehouse. These drums still remain in the warehouse as of the development of this document.